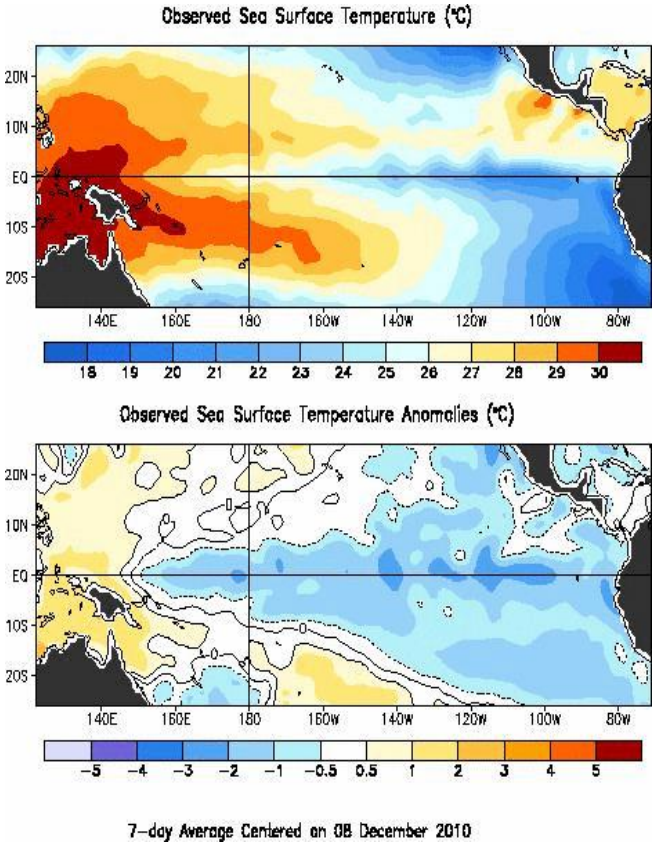
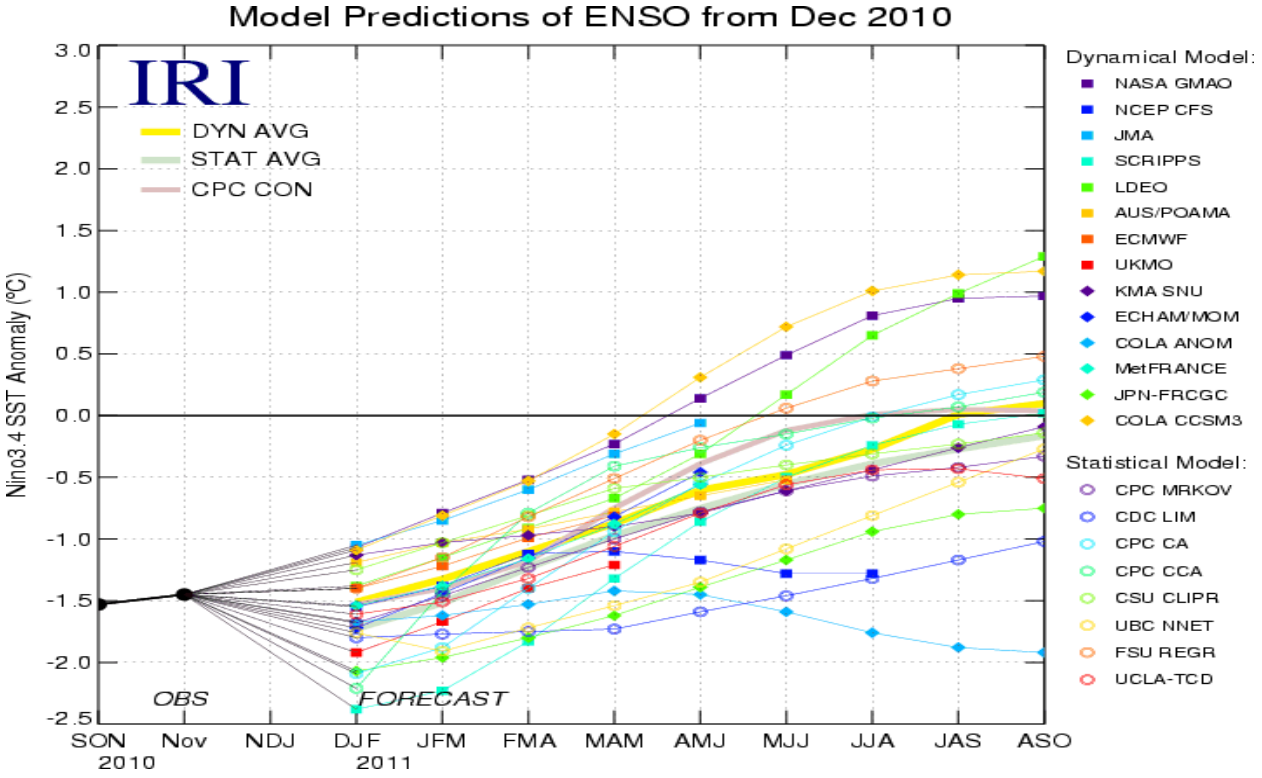
Central Region January 2011 & JFM Climate Summary

Both the surface water temperatures and sub-surface thermocline across the equatorial Pacific continue to show that a strong La Niña pattern remains well established. The latest SST departure in the Nino 3.4 region was -1.6C with anomalies across the Niño regions ranging from -1.3 to -1.7. The dynamical and statistical models (*below*) used by CPC, do indicate that La Niña will persist through the Northern Hemisphere Winter of 2010-11 and into the spring season, though an overall slow weakening trend has been noted. There was considerable discussion with regard to the very strong –AO pattern now in place and its effect on the forecast. Despite the noted slow warming trend in the models, the CPC monthly and seasonal forecasts continue to follow the La Niña composites through the spring of 2011, though the effects of a persistent –AO were taken into consideration during the forecast process. The potential for La Niña to remain into the, MJJ, early summer season was also discussed though no favored outcome after spring was anticipated.

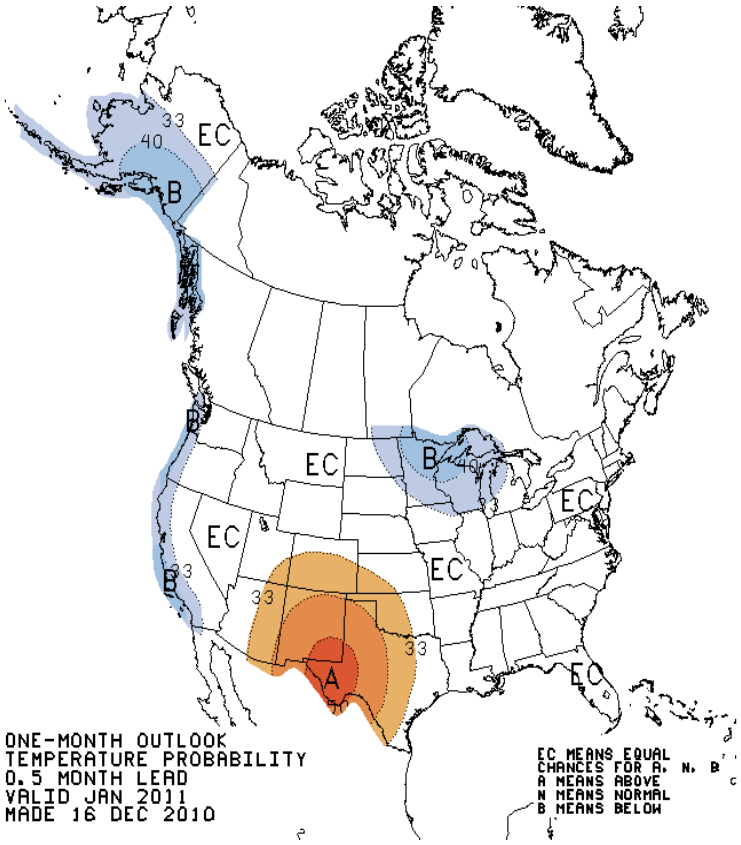




January 2011 CPC Climate Outlooks

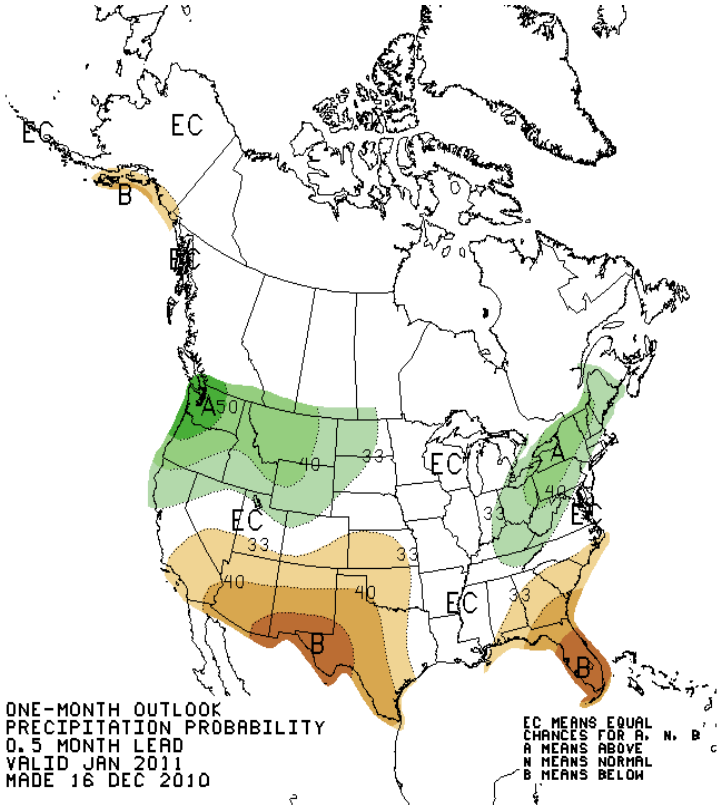
Temperature:

The higher probabilities of uncommonly warm temperatures are forecast for portions of southwestern Kansas and the southern two thirds of Colorado. Uncommonly cool temperatures are forecast to impact portions of the Northern Plains, Upper Mississippi Valley and the Great Lakes Region, which includes portions of eastern North Dakota, Minnesota, Northeastern Iowa, northern Indiana and Illinois and locations across the remainder of the Great Lakes region. The remainder of the Central Region shows indeterminate chances for above-normal, near-normal, and below-normal precipitation.



Precipitation:

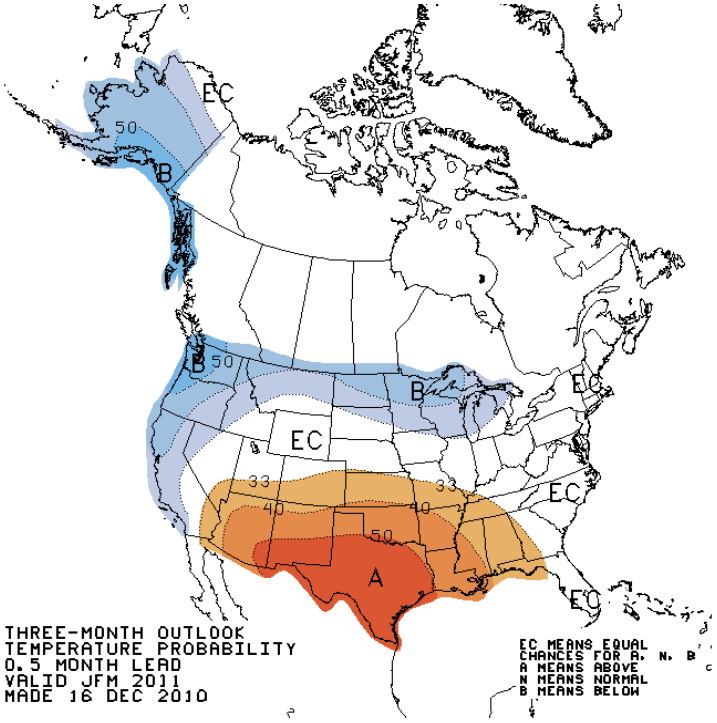
Above–normal precipitation is expected for portions of the Northern Plains including Most of North Dakota, the western half of South Dakota, The northwestern Corner of Colorado and most of Wyoming, as well as the Eastern Great Lakes region and part of the lower Ohio River Valley including portions of eastern Kentucky and Indiana . The below-normal precipitation area was limited to most of Kansas and the southern third of Colorado. The remainder of the Central Region shows indeterminate chances for above-normal, near-normal, and below-normal precipitation.



2011 (JFM) January-March CPC Outlooks

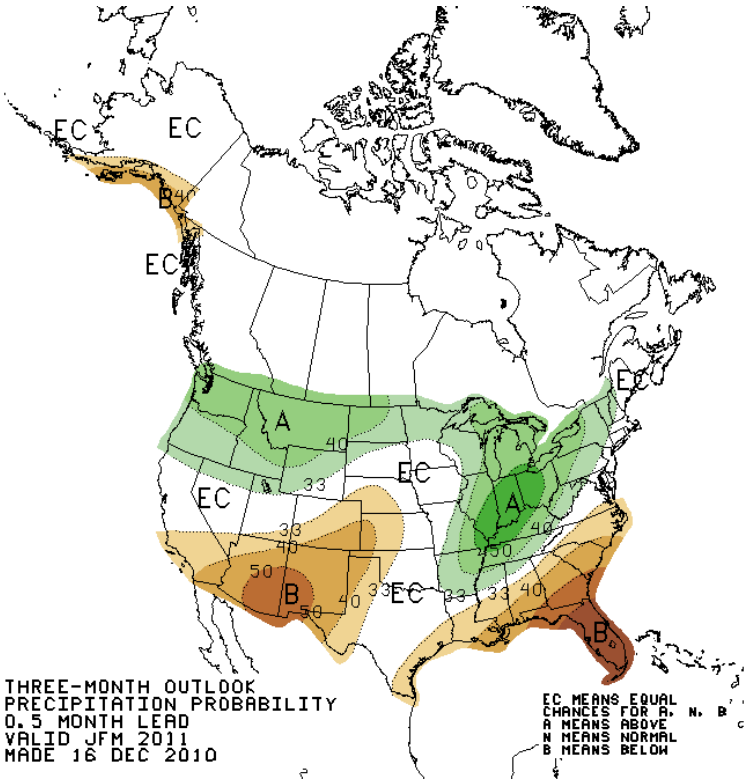
Temperature:

The chances for uncommonly cold temperatures are anticipated to occur across portions of the northern plains including North Dakota, portions of northeastern South Dakota, Minnesota, Northeastern Iowa, northern Illinois, the northern half of Indiana and all of the Great Lakes Region. The chances for uncommonly warm temperatures are forecast to be limited to the southeastern two thirds of Colorado, Kansas and the southern half of Missouri. The remainder of the Central Region shows indeterminate chances for above-normal, near-normal, and below-normal precipitation.



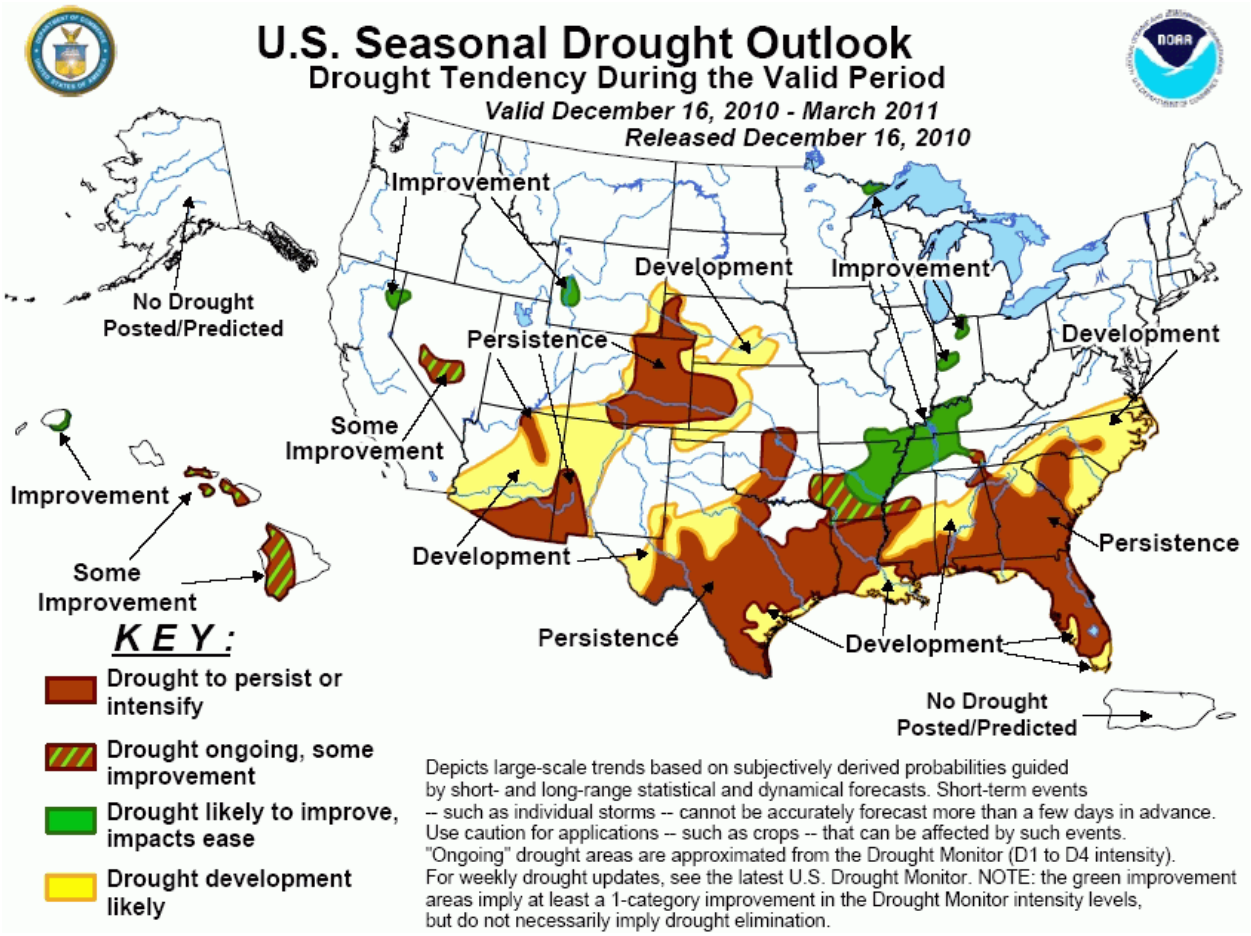
Precipitation:

The best chances for uncommonly wet conditions remain across the Northern Plains, the Great Lakes Region and the Middle Mississippi and lower Ohio Valleys. Locations include much of Wyoming east to the northern half of Minnesota then south across much of Wisconsin, Illinois, the eastern half of Missouri and points north and east. A >50 percent bull's eye is indicated from the Missouri Boot heel to southern Michigan. A tongue of uncommonly dry conditions is expected for the southeastern two thirds of Colorado, the western half of Kansas and portions of southern Nebraska. Chances are unknown or indeterminate for the remainder of Central Region.



Seasonal Drought Outlook for December 16, 2010 through March 2011

Based on the recent trends of precipitation, CPC is forecasting continued improvement in the drought situation for the Minnesota Arrowhead, portions of Indiana and western Wyoming, extreme southern Missouri and into western Kentucky. Drought conditions are expected to persist or develop across much of eastern Colorado, eastern Wyoming, the western half of Kansas and across portions of Nebraska.



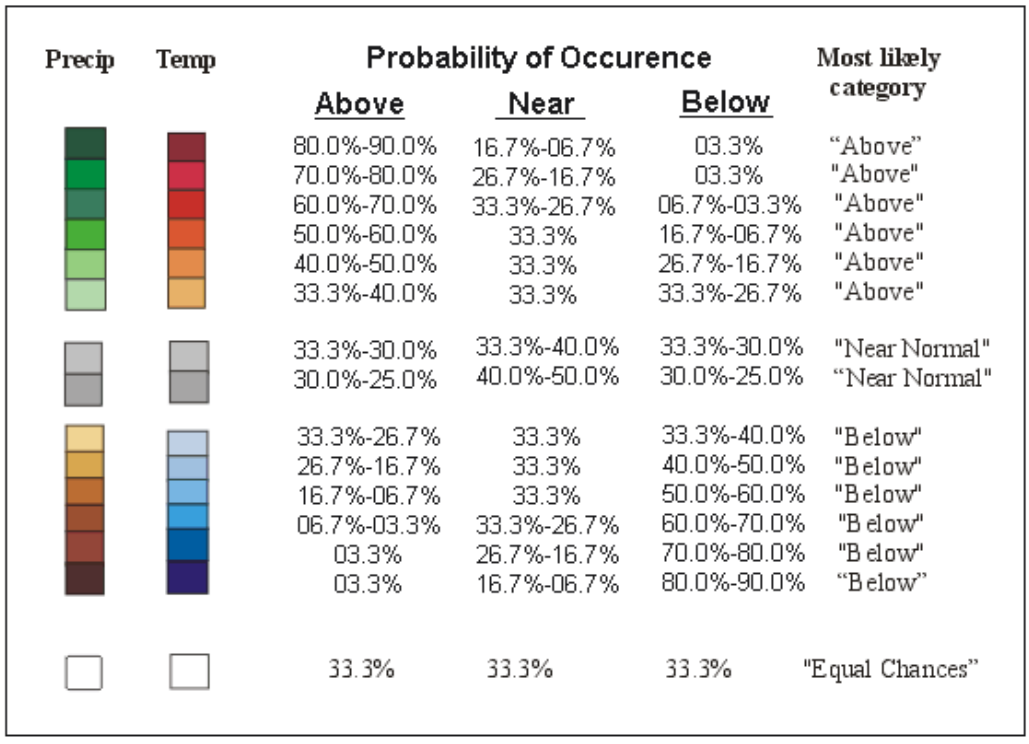
Seasonal Outlook Interpretation Guide

The National Weather Service Seasonal Climate Outlooks predict the probability of conditions being among the warmest/coldest or wettest/driest (Table 1) terciles of years compared to the period of 1971-2000.

The outlooks indicate probability of being in three specific categories in reference to the 30-year climatology from 1971-2000 (Table 2). Remember, CPC outlooks are made at the scale of climate mega-divisions (Fig. 1).

Temperature		Precipitation	
Social Science	**Climate Science**	**Social Science**	**Climate Science**
Uncommonly Cold	Below Normal Tercile	Uncommonly Wet	Above Normal Tercile
Uncommonly Warm	Above Normal Tercile	Uncommonly Dry	Below Normal Tercile
Moderate (Neither Warm Nor Cold)	Normal Tercile	Moderate (Neither Wet nor Dry)	Normal Tercile

Table 2...Climate Science Statistical Terminology (Terciles)



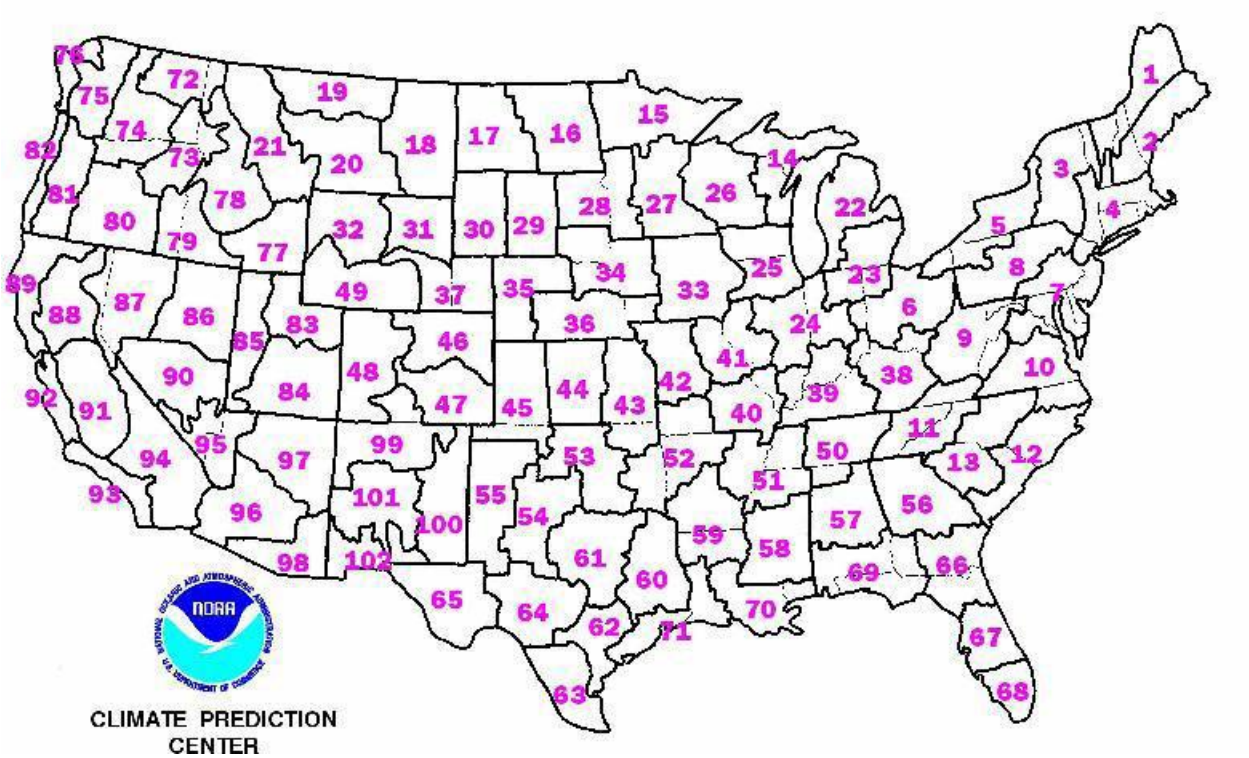


Figure 1…Mega Division Climate Forecast Map used by the Climate Prediction Center (CPC)

The following links show some of the ENSO composites that were used to make these forecasts.

CPC ENSO Box & Whisker Analysis:

http://www.cpc.ncep.noaa.gov/products/precip/CWlink/ENSO/box_whiskers/index.php

El Nino and La Niña-Related Winter Features over North America:

http://www.cpc.ncep.noaa.gov/products/precip/CWlink/ENSO/composites/EC_LNT_index.shtml

Winter Composites:

http://www.cpc.noaa.gov/products/analysis_monitoring/ensocycle/nawinter.shtml